What is claimed is:

1. A polymer comprising one or more first monomeric unit having a Formula I shown in Figure 1, where:

R is a substituent on a carbon atom in an aromatic ring, which can be the same or different at each occurrence and is selected from hydrogen, alkyl, aryl, heteroalkyl, heteroaryl, F, -CN, $-OR^1$, $-CO_2R^1$, $-C_\psi H_\theta F_\lambda$, $-OC_\psi H_\theta F_\lambda$, $-SR^1$, $-N(R^1)_2$, $-P(R^1)_2$, $-SOR^1$, $-SO_2R^1$, $-NO_2$, and beta-dicarbonyls having Formula XII shown in Figure 12 ; or

adjacent R groups together can form a ring selected from 5-membered cycloalkyl, 6-membered cycloalkyl, 5- membered aryl, 6-membered aryl. 5-membered heteroaryl and 6-membered heteroaryl,

such that:

R^1 is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl; and

ψ is an integer between 1 and 20, and θ and λ are integers satisfying Equation A1 below:

$$\theta + \lambda = 2\psi + 1; \qquad \text{(Equation A1)};$$

R^2 is a substituent on a carbon atom not in an aromatic ring, which can be the same or different at each occurrence and is selected from hydrogen, alkyl, aryl, heteroalkyl, heteroaryl and $-C_\psi H_\theta F_\lambda$,

with the proviso that the polymer contains at least one R substituent with the formula $-C_\psi F_{2\psi+1}$.

2. The polymer of Claim 1 additionally comprising at least one second monomeric unit selected from (i) aromatic groups having Formula I. shown in Figure 1, (ii) aromatic groups having Formula II shown in Figure 2, (iii) 6-membered heteroaromatic groups having Formula III, shown in Figure 6; (iv) 5-membered heteroaromatic groups having Formula IV, shown in Figure 7; (v) aromatic groups having Formula V, shown in Figure 8, (vi) divalent fused ring aromatic groups having Formula VI through Formula VIII, shown in Figure 9, and Formula IX through Formula XI, shown in Figure 10, and (vii) combinations thereof, where:

in each of Formulae II, III, IV, V, VI, VII, VIII, and IX:

R, R^1, R^2, ψ, θ and λ are as defined above;

E can be the same or different at each occurrence and is a single bond or a linking group selected from arylene and heteroarylene;

in Formula IV:

A is independently at each occurrence C or N and γ is 0 or an integer selected from 1 or 2, such that when both A are N, then γ is 0; or when one of A is N and one of A is C, then γ is 1; or when both A are C, then γ is 2;

Q is O, S, SO_2, or NR^1 where:

R^1 is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl;

in Formula V:

Q^1 is a carbonyl group, O, S, SO_2, or NR^1 where:

R^1 is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl;

W is H, alkyl or heteroalkyl; or both of W together can represent one single bond;

in Formula VI:

the two E's are in the 1,4-, 1,5-, 1,8-, 2,3-, or 2,6- positions;

in Formula VII:

the two E's are in the 1,4-, 1,5-, 1,8-, 2,3-, 2,6-, or 9,10- positions;

in Formula VIII:

a first E is in the 1, 2, or 3 position, a second E is in the 6, 7, or 8 position;

in Formula IX:

a first E is in the 2, 3, or 4 position; a second E is in the 7, 8, or 9 position; and

in Formula XII:

R^3 is selected from hydrogen, alkyl, aryl, heteroalkyl and heteroaryl;

δ is 0 or an integer from 1 to 12.

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3. The copolymer of Claim 2 wherein the at least one of the R groups in one or more of the at least one first monomeric unit is independently selected from linear and branched n-butyl groups; linear

and branched iso-butyl groups; linear and branched pentyl groups; hexyl groups, and octyl groups with and without olefinic unsaturation; phenyl groups, thiophene groups, carbazole groups, alkoxy groups, phenoxy groups and cyano groups.

4. The copolymer of Claim 2 wherein at least one of the R groups in one or more of the at least one first monomeric unit are independently selected from H, C_6-C_{12} alkoxy, phenoxy, C_6-C_{12} alkyl, phenyl and cyano.

5. The copolymer of Claim 2 wherein one or more of the at least one second monomeric unit is selected from Formulae II(a) through II(z), III(a) through III(g), IV(a) through IV(h), V(a) through V(e), VI(a) through VI(d), and VII(a) where:

in Formulae II(v) through II(y), IV(a), V(a), and V(b):

R is as described above for each of Formulae I, II, III, IV, V, VI, VII, VIII through XI;

in Formula IV(h):

R^1 is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl; and

in Formula V(e):

R^1 is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl.

6. The copolymer of Claim 1, wherein one or more of the at least one second monomeric unit has Formula II wherein R is selected from:

hydrogen;
alkyl;
aryl;
heteroalkyl;
heteroaryl;
F;
-CN;
$-NO_2$;
a beta-dicarbonyl having Formula XII shown in Figure 12;
$-C_\psi H_\theta F_\lambda$;
$-OC_\psi H_\theta F_\lambda$; and

$-P(R^1)_2$, $-SOR^1$,$-OR^1$, $-CO_2R^1$, $-SR^1$, $-N(R^1)_2$, and $-SO_2R^1$, where R^1 is a straight chain or branched alkyl of from 1 to 20 carbons or a straight chain or branched heteroalkyl.

7. The copolymer of Claim 1, wherein one or more of the at least one second monomeric unit has Formula II wherein R is selected from:

alkyl groups having from 1 to 12 carbon atoms;

partially or fully fluorinated alkyl groups having from 1 to 12 carbon atoms, especially CF_3;

aryl groups having from 6 to 20 carbon atoms;

heteroaryl groups having from 4 to 20 carbon atoms and substituted with O, S, or N;

alkoxy groups having from 1 to 12 carbon atoms; and

esters having from 3 to 15 carbon atoms.

8. The copolymer of Claim 2, where one or more of the at least one second monomeric unit has Formula III wherein:

R groups are selected from hydrogen, C_6-C_{12} alkyl groups, C_6-C_{20} aryl groups, and C_2-C_{20} heteroaryl groups; and

E linking groups are selected from pyridinediyl ($-C_5H_4N-$) and bipyridinediyl ($-C_5H_4N- C_5H_4N-$).

9. The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has Formula IV wherein:

R groups are selected from H, C_6-C_{12} alkyl groups, C_6-C_{20} aryl groups, and C_2-C_{20} heteroaryl groups; and

E linking groups include pyrrolediyl ($-C_4H_3N-$) and thiophenediyl ($-C_4H_3S-$).

10. The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has Formula V wherein:

R groups are selected from H, C_6-C_{12} alkyl groups, C_6-C_{20} aryl groups, and C_2-C_{20} heteroaryl groups; and

the two W represent one single bond.

11. The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has one of Formulae VI through XI wherein:

R groups are selected from H, C_6-C_{12} alkyl groups, C_6-C_{20} aryl groups, and C_2-C_{20} heteroaryl groups; and

in Formula VI:

the E's are in the 1,4-, 1,5-, 1,8-, 2,3-, or 2,6- positions;

in Formula VII:

the E's are in the 1,4-, 1,5-, 1,8-, 2,3-, 2,6-, or 9,10- positions.

12. The copolymer of Claim 1, further comprising end-capping groups comprising an aromatic group.

13. An electronic device comprising at least one electroactive layer comprising the polymer of Claim 1.

14. An electronic device comprising at least one electroactive layer comprising a polymer selected from the polymer of Claim 2.

15. The device of Claim 13, wherein the device comprises a hole injection/transport layer comprising the polymer of Claim 1.

16 The device of Claim 13, wherein the device comprises an electron injection/transport layer comprising the polymer of Claim 1.

17. The device of Claim 13, wherein one or more of the electroactive layer comprises a light-emitting material comprising the polymer of Claim 1.

18. The device of Claim 13, wherein the device is selected from a light-emitting device, a photodetector, and a photovoltaic device.

19. The device of Claim 13, wherein the device is an electroluminescent display.

20. A process for preparing fluorene polymers having perfluoroalkyl groups, the steps comprising:

forming a polymer having at least one first monomeric unit having a Formula I shown in Figure 1 where:

R is a substituent on a carbon atom in an aromatic ring, which can be the same or different at each occurrence and is selected

from hydrogen, alkyl, aryl, heteroalkyl, heteroaryl, F, -CN, -OR^1, -CO_2R^1, -$C_\psi H_\theta F_\lambda$, -$OC_\psi H_\theta F_\lambda$, -$SR^1$, -$N(R^1)_2$, -$P(R^1)_2$, -$SOR^1$, -$SO_2R^1$, -$NO_2$, and beta-dicarbonyls having Formula XII shown in Figure 12 ; or adjacent R groups together can form a ring selected from 5-membered cycloalkyl, 6-membered cycloalkyl, 5- membered aryl, 6-membered aryl. 5-membered heteroaryl and 6-membered heteroaryl,

such that:

R^1 is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl; and

ψ is an integer between 1 and 20, and θ and λ are integers satisfying Equation A1 below:

$$\theta + \lambda = 2\psi + 1; \qquad \text{(Equation A1)};$$

R^2 is a substituent on a carbon atom not in an aromatic ring, which can be the same or different at each occurrence and is selected from hydrogen, alkyl, aryl, heteroalkyl, heteroaryl and -$C_\psi H_\theta F_\lambda$,

with the proviso that the polymer contains at least one R substituent with the formula -$C_\psi F_{2\psi+1}$;

treating the polymer with a perfluoroalkylating reagent selected from (i) a perfluoroalkyl iodide and (ii) a perfluoroalkylsulfonyl chloride in the presence of a ruthenium(II) catalyst.